

EPO -DG 1

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NEW SET OF CLAIMS

1. Process to prepare a heavy base oil having a kinematic viscosity at 100 °C of above 15 cSt and a light lubricating base oil having a kinematic viscosity at 100 °C of between 3.8 and 6 cSt from a partly isomerised Fischer-Tropsch derived feedstock, said feedstock having an initial boiling point of below 400 °C and a final boiling point of above 600 °C and the fraction boiling above 540 °C is at least 20 wt% by
- 5 (a) separating, by means of distillation, said fraction into a light base oil precursor fraction and a heavy base oil precursor fraction,
- 10 (b) reducing the pour point of each separate base oil precursor fraction by means of dewaxing,
- (c) and isolating the desired base oil products from said dewaxed oil fractions as obtained in step (b).
- 15 2. Process according to claim 1, wherein the effective cut temperature in step (a) at which the light and heavy base oil precursor fractions are separated is between 470 and 600 °C.
- 20 3. Process according to any one of claims 1-2, wherein the fraction boiling above 540 °C in the feed to step (a) is at least 30 wt%.
4. Process according to any one of claims 1-3, wherein the heavy base oil as obtained in step (c) has a
- 25 kinematic viscosity at 100 °C of above 17 cSt, preferably above 20 cSt.
5. Process according to claim 4, wherein a base oil having a kinematic viscosity at 100 °C of between 7 and

15 cSt is isolated from the dewaxed light base oil precursor fraction.

6. Process according to any one of claims 1-5, wherein the dewaxing of the heavy and light base oil precursor
5 fraction is performed simultaneously in two different reactors.

7. Process according to any one of claims 1-6, wherein the dewaxing step is performed by means of a catalytic dewaxing process in the presence of a catalyst comprising
10 a medium pore size molecular sieve and a Group VIII metal.

8. Process according to claim 7, wherein the molecular sieve is a MTW, MTT or TON type molecular sieve.

9. Process according to any one of claims 7 or 8,
15 wherein the Group VIII metal is platinum or palladium.

10. Process according to any one of claims 7-9, wherein the catalyst used in the catalytic dewaxing of the heavy base oil precursor fraction comprises a MTW molecular sieve, platinum or palladium as Group VIII metal and a
20 silica binder.

11. Process according to claim 10, wherein the catalytic dewaxing of both light and heavy base oil precursor fractions are performed in the presence of a catalyst comprising a MTW molecular sieve, platinum or palladium
25 as Group VIII metal and a silica binder.

12. Process according to any one of claims 1-6, wherein the heavy base oil precursor fraction is reduced in pour point by first performing a pour point reducing step in the presence of a catalyst comprising a 12-member ring zeolite and secondly performing a catalytic dewaxing on
30 the effluent of the first step in the presence of a 10-member ring zeolite.

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13. Process according to claim 12, wherein the pour point after the first dewaxing step is between -10 and +10 °C.

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AMENDED SHEET